

REMARKS

To further prosecution of the present application, Applicants have amended herein Claims 1-6, 23-28, and 31. The claim amendments do not add subject matter to the present application and have antecedent basis.

In addition, Applicants have cancelled herein Claims 30 and 32 without prejudice to the subject matter recited in such claims. Further, Applicants have added herein new Claims 33-34. Claims currently pending include Claims 1-6, 23-28, 31, and 33-34 with Claims 1 and 34 in independent form.

Applicants respectfully request reconsideration.

Claim Rejections Pursuant 35 U.S.C. § 112

The Examiner has indicated that the term “reinforcement assembly” in the claims is not described in the specification as originally filed. Without acceding to the correctness of the Examiner’s conclusion, Applicants respectfully submit the term “reinforcement assembly” has been amended herein to “reinforcement rod”. Withdrawal of the claim rejections pursuant 35 U.S.C. § 112 is respectfully requested.

Rejection of Claims 1-6, 23-28 and 30-32 Pursuant 35 U.S.C. § 103(a)

Claims 1-6, 23-28 and 30-32 have been rejected pursuant 35 U.S.C. § 103(a) as being unpatentable over U.S. 4,479,984 issued to Levy et al. (“Levy”) in view of U.S. 5,700,417 issued to Fernyhough (“Fernyhough”) and further in view of U.S. 6,249,629 issued to Bringuier (“Bringuier”). Claims 30 and 32 have been cancelled herein. Applicants respectfully traverse the rejection of the pending claims for the reasons given below.

The Examiner indicated in the Office Action mailed September 7, 2005, and in the previously issued Office Action mailed August 25, 2004, that Levy and Fernyhough each teach strength members comprising UV cured vinyl ester resin matrix material having a plurality of elongated fiber members encased therein with an outer topcoat applied thereto. In addition, the Examiner indicated that Fernyhough teaches that polybutylene terephthalate can be added to the resin material, (col. 3, lines 21-22), and further takes the position that this teaching would encompass polybutylene copolymers as

well. The Examiner also indicated that polyether glycol copolymer and ethylene acrylic acid copolymer are taught by Fernyhough for inclusion in the resin material. (col. 3, lines 21-22 and lines 45-46).

More specifically, with respect to Claim 1, the Examiner relies upon the teachings of Fernyhough at column 5, lines 17-18, which recites “the same resin formulations may be used as an outer coating”, as a teaching or suggestion that would motivate one of ordinary skill to provide the presently claimed outer topcoat layer comprised of a non-radiation-curable, thermoplastic hot melt polybutylene copolymer resin to impart specific bonding characteristics to said rod, as recited in amended Claim 1. Applicants respectfully disagree with the Examiner’s conclusion. Applicants respectfully submit that the cited combination of prior art references and, more particularly, Fernyhough does not teach or suggest at least the presently claimed outer topcoat layer because the disclosure of Fernyhough is directed exclusively to radiation-curable compositions for preparation of fiber reinforced compositions and coatings. Therefore, the teachings of Fernyhough are not directed to at least the claimed outer topcoat layer recited in amended Claim 1. Furthermore, combining the teachings of Fernyhough with Levy and/or Bringuier does not achieve the presently claimed invention of Claim 1.

If Fernyhough were prior art to Claim 1, Fernyhough, alone or in combination with Levy and Bringuier, would have to teach or suggest a reinforcement rod comprising at least all of the requisite elements of Claim 1. Moreover, with respect to the outer topcoat layer, Fernyhough would have to provide some motivation to direct one of ordinary skill in the art to select the claimed aspects of said outer topcoat layer without any need for one skilled in the art to pick, choose and combine Fernyhough’s various disclosures. Applicant acknowledges that Fernyhough discloses a suitable polymer for the radiation-curable composition or matrix material may include poly (butylene-) terephthalates. However, this disclosure does not teach or suggest the presently claimed outer topcoat layer and therefore does not provide the motivation for one of ordinary skill in the art to modify Levy or Fernyhough to include the presently claimed outer topcoat layer. Nor does Fernyhough suggest the desirability of selecting the presently claimed outer topcoat layer from the laundry list of compounds Fernyhough discloses for the

matrix material and incorporating, for instance, poly (butylene-) terephthalates into the reinforcement rod to achieve the presently claimed outer topcoat layer.

Rather, in contrast, Fernyhough's specification discloses polymers and other compounds as radiation-curable components of the matrix materials and as radiation-curable components of outer layers or coatings. Moreover, all of Fernyhough's compositions and processes are disclosed as radiation-curable materials without any suggestion of the application of any such compounds as thermoplastic hot melt resins to achieve an outer topcoat layer. Applicants respectfully draw the Examiner's attention to Figure 3 of the application specification illustrating a process for making the claimed reinforcement rod and to pages 9-10 describing such process. After the fiber members are coated with the resin matrix material, the reinforcement rod precursor (18a) is pulled through an ultraviolet light source to cure the resin. (See page 10, lines 8-11). Subsequent to curing the matrix material, the thermoplastic topcoat (32) is applied to the rod precursor (18a) and the rod precursor is then pulled through a cooling water bath (54), a rod dryer (56) and a lump catcher (58) to cool the coating and to impart an even layer of topcoat (32) around the rod (18). (See page 10, second full paragraph.) The outer topcoat layer is therefore formed without radiation curing and constitutes a hot melt that is cooled to form an outer topcoat layer.

Thus, the broad and vague disclosure of the laundry list of radiation-curable components for the matrix composition and for the coatings of Fernyhough fails to provide the requisite motivation to one of ordinary skill in the art to select the presently claimed thermoplastic hot melt polybutylene polymer resin with the recited limitations let alone applying and forming such a coating without use of radiation curing.

Furthermore, the disclosure of Fernyhough fails to provide the requisite motivation that one of ordinary skill in the art would have a reasonable expectation of success in using poly (butylene-) terephthalates in the form of a "non-radiation-curable, thermoplastic hot melt polybutylene copolymer resin" as a component of an outer topcoat layer to impart specific bonding characteristics to the rod.

Therefore, Fernyhough both alone and in the suggested combination of Levy and Bringuier fails to provide the requisite teaching or suggestion that would have motivated one of ordinary skill in the art at the time of the invention to modify either Levy or

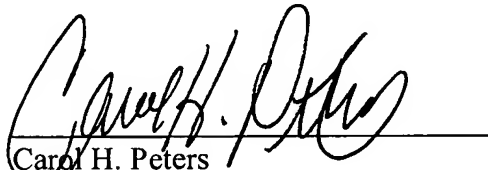
Fernyhough to achieve the presently claimed outer topcoat layer of Claim 1. Thus, Claim 1 is patentably distinct from the cited combination of prior art references. Accordingly, the rejection of Claim 1 pursuant 35 U.S.C. 103(a) as being unpatentable over the cited prior art references should be withdrawn.

Claims 2-6, 23-28, 31, and 33 depend from Claim 1 and are patentable for at least the reasons given above.

With respect to new Claim 34, Applicants respectfully submit the foregoing discussion of the combination of prior art references with respect to Claim 1 and in particular with respect to the outer topcoat layer also apply to Claim 34 with respect to the outer topcoat layer comprised of at least a non-radiation curable, thermoplastic hot melt ethylene acrylic acid copolymer resin.

Based upon the foregoing amendments and discussion, the present application is in condition for allowance, and an action to this effect is respectfully requested. Should the Examiner have any questions concerning this response, she is invited to telephone the undersigned.

Respectfully submitted,



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